| L Number | Hits | Search Text | DB | Time stamp |
|----------|---------|---|------------|------------------|
| - | 53958 | (("175") or ("166")).CLAS. | USPAT; | 2002/11/13 14:30 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЈРО; | |
| | | | DERWENT | |
| - | 11 | ((((175/\$) or (166/\$)).CCLS.) and (jar with housing with mandrel with | USPAT; | 2002/11/13 14:48 |
| | | coupl\$3) | US-PGPUB; | |
| | | • / | ЕРО; ЛРО; | |
| , | | | DERWENT | |
| _ | 4 | (("5086853") or ("4508174")).PN. | USPAT; | 2002/11/13 14:50 |
| į | | | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | |
| - 1 | 232 | (166/178).CCLS. | USPAT; | 2002/11/13 15:17 |
| | | (100,110),0000 | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | |
| _ | 11 | ("Re28768" "0046815" "0051136" "1214622" "1450024" | USPAT | 2002/11/13 15:24 |
| - | 11 | "2305261" "2628820" "2739654" "3054454" "3358765" | | 2302.11.13 13.24 |
| | | 2303201 2028820 2739034 3034434 3338703 "4427064").PN. | | |
| | 6 | 4736797.URPN. | USPAT | 2002/11/13 15:27 |
| - | | 473077.0KFN. ("2706616" "2847655" "3817345" "4245313" "4319240").PN. | USPAT | 2002/11/13 13:27 |
| - | 5 | (2706616 2847633 3817343 4243313 4319240).FN. | USPAT | 2002/11/14 08:33 |
| - | 10 4 | 2706616.URPN. 4416494.URPN. | USPAT | 2002/11/14 08:47 |
| - | | 4410494.0KFN. ("4648444" "4685516" "4697641" "4706744" "4736797" | USPAT | 2002/11/14 08:57 |
| - | 8 | | USFAI | 2002/11/14 08.37 |
| | - | "4753291" "4759406" "4776393").PN. | USPAT | 2002/11/14 09:01 |
| - | 6 | 5109921.URPN. | 1 ' | |
| - | 6 | ("2187007" "2620029" "3024844" "3957118" "4098342" | USPAT | 2002/11/14 09:06 |
| | | "4624308").PN. | LIODAT | 2002/11/14 00:10 |
| - | 9 | 4706744.URPN. | USPAT | 2002/11/14 09:10 |
| - | 0 | "081961" | US-PGPUB | 2002/11/26 13:55 |
| - | 181 | (((((175/\$) or (166/\$)).CCLS.) and jar) and housing and mandrel and | USPAT; | 2002/11/26 13:55 |
| | | coupl\$3 | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | • | ((((185)0) (166)0) (010) (11) (11) (11) (11) | DERWENT | 2002/11/26 12:56 |
| - | 0 | ((((((175/\$) or (166/\$)).CCLS.) and jar) and housing and mandrel and | US-PGPUB | 2002/11/26 13:56 |
| | | coupl\$3) and vibrator | TIO DODITO | 2002/11/26 12:56 |
| - | 0 | ((((((175/\$) or (166/\$)).CCLS.) and jar) and housing and mandrel and | US-PGPUB | 2002/11/26 13:56 |
| | | coupl\$3) and (drilling adj hammer) | ***** | 2002/11/26 14/24 |
| - | 937 | (((175/\$) or (166/\$)).CCLS.) and jar | USPAT; | 2002/11/26 14:24 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | 2002/11/25 |
| - | 0 | (((((175/\$) or (166/\$)).CCLS.) and jar) and vibrator | US-PGPUB | 2002/11/26 13:56 |
| - | 0 | (((((175/\$) or (166/\$)).CCLS.) and jar) and (drilling adj hammer) | US-PGPUB | 2002/11/26 13:56 |
| - | 1 | ((((((175/\$) or (166/\$)).CCLS.) and jar) and housing and mandrel and | USPAT; | 2002/11/26 14:13 |
| | | coupl\$3) and vibrator | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | |
| - | 0 | ((((((175/\$) or (166/\$)).CCLS.) and jar) and housing and mandrel and | USPAT; | 2002/11/26 14:19 |
| | | coupl\$3) and (drilling adj hammer) | US-PGPUB; | |
| | | | ЕРО; ЈРО; | |
| | | | DERWENT | |
| - | 10 | (((((175/\$) or (166/\$)).CCLS.) and jar) and vibrator | USPAT; | 2002/11/26 14:24 |
| | | | US-PGPUB, | |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | |
| _ | 1 | (((((175/\$) or (166/\$)).CCLS.) and jar) and (drilling adj hammer) | USPAT; | 2002/11/26 14:20 |
| | • | | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | | 1 | DERWENT | 1 |

| - | 0 | (((175/\$) or (166/\$)).CCLS.) and ((drill adj bit) near5 vibrator) | USPAT; | 2002/11/26 14:26 |
|---|-----|--|-----------|------------------|
| | | | US-PGPUB; | |
| | | | ЕРО; ЈРО; | |
| | | | DERWENT | |
| - | 1 | (((175/\$) or (166/\$)).CCLS.) and ((drill adj bit) near10 vibrator) | USPAT; | 2002/11/26 14:25 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЈРО; | |
| | | | DERWENT | |
| - | 35 | (((175/\$) or (166/\$)).CCLS.) and (drilling adj hammer) | USPAT; | 2002/11/26 14:27 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЈРО; | |
| | | | DERWENT | |
| - | 3 | (((175/\$) or (166/\$)).CCLS.) and (jar near5 actuator) | USPAT; | 2002/11/26 15:05 |
| | | | US-PGPUB; | |
| l | | | ЕРО; ЈРО; | |
| | | | DERWENT | |
| - | 0 | (((175/\$) or (166/\$)).CCLS.) and jar and (free near5 striking near5 | USPAT; | 2002/11/26 15:06 |
| | | range) | US-PGPUB; | |
| | | | ЕРО; ЈРО; | |
| | | | DERWENT | |
| - | 1 | (((175/\$) or (166/\$)).CCLS.) and (jar near5 orifice near5 (open closed)) | USPAT; | 2002/11/26 15:06 |
| | | | US-PGPUB, | |
| | | | ЕРО; ЈРО; | |
| | | | DERWENT | |
| - | 158 | (175/297).CCLS. | USPAT; | 2002/11/27 07:39 |
| | | | US-PGPUB, | |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | |
| - | 126 | (175/55).CCLS. | USPAT; | 2002/11/27 07:39 |
| | | | US-PGPUB, | |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | |
| - | 226 | (175/92).CCLS. | USPAT; | 2002/11/27 07:41 |
| | | | US-PGPUB; | • |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | |
| - | 234 | (175/293).CCLS. | USPAT; | 2002/11/27 07:42 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | |
| - | 383 | (175/73).CCLS. | USPAT; | 2002/11/27 07:43 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | | , i | DERWENT | |
| - | 265 | (166/301).CCLS. | USPAT; | 2002/11/27 07:43 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | |
| - | 0 | (downhole adj tool) near5 housing near5 mandrel near5 actuat\$3 near5 | USPAT; | 2003/02/25 10:27 |
| | | (signal power) | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | | [| DERWENT | |
| - | 0 | (downhole adj tool) near5 housing near5 mandrel near5 (signal power) | USPAT; | 2003/02/25 10:28 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | |
| - | 1 | (downhole adj tool) near10 housing near10 mandrel near10 (signal | USPAT; | 2003/02/25 10:28 |
| | | power) | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | 1 | | DERWENT | |

| - | 0 | jar near5 housing near5 mandrel near5 (signal power) | USPAT; US-PGPUB; | 2003/02/25 10:28 |
|----------|----------|--|----------------------|-------------------|
| | | | ЕРО; ЈРО; | |
| | | | DERWENT | 0000100105 10 00 |
| - | 1 | jar near10 housing near10 mandrel near10 (signal power) | USPAT; | 2003/02/25 10:28 |
| | | | US-PGPUB; | |
| | | | EPO; JPO; DERWENT | |
| <u> </u> | 10 | jar same housing same mandrel same (signal power) | USPAT; | 2003/02/25 10:28 |
| - | 10 | Jul Suite Housing Suite Manufer Suite (Signal power) | US-PGPUB; | 2003/02/23 10:20 |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | |
| - | 7 | (((175/\$) or (166/\$)).CCLS.) and (jar near5 electric) | USPAT; | 2004/06/02 13:19 |
| | | | US-PGPUB; | |
| | | | EPO; JPO; | |
| | 4 | (()(()(170) ()()()) 1 ()(()()() 1 ()()() 1 ()()() 1 ()()() 1 ()()()() | DERWENT | 2002/02/25 10:24 |
| - | 4 | ((166/178).CCLS.) and (166/65.1 166/66 166/66.4-66.7) | USPAT; US-PGPUB; | 2003/02/25 10:34 |
| | | • | EPO; JPO; | |
| | | | DERWENT | |
| - | 0 | (((175/\$) or (166/\$)).CCLS.) and (electr\$4 adj jar) | USPAT; | 2003/02/25 10:35 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЈРО; | |
| | | | DERWENT | |
| - | 8 | (("2153883") or ("3191677") or ("3424244") or ("3528498") or | USPAT | 2004/06/02 15:09 |
| | 2 | ("3616868") or ("4890682") or ("6029748") or ("6112818")).PN. ("6290004").PN. | USPAT; | 2003/06/16 09:18 |
| - | ' | (0230004).114. | US-PGPUB; | 2003/00/10 09.18 |
| | | | EPO; JPO; | |
| | | | DERWENT | |
| - | 2 | ("6655460").PN. | USPAT; | 2004/06/02 09:50 |
| | | | US-PGPUB; | |
| | | | EPO; JPO; | |
| | 0 | (control\$4 near3 drill\$3) with (electric\$3 near3 transmit\$4 near3 | DERWENT USPAT; | 2004/06/02 13:21 |
| - | | (tubular tubing pipe string casing)) with (tool valve) | US-PGPUB; | 2004/00/02 13.21 |
| ! | | (thousand thomas paper out and outside (thousand) | ЕРО; ЈРО; | |
| | | | DERWENT | |
| - | 1 | (control\$4 near3 drill\$3) same (electric\$3 near3 transmit\$4 near3 | USPAT; | 2004/06/02 14:43 |
| | | (tubular tubing pipe string casing)) same (tool valve) | US-PGPUB; | |
| | | | EPO; JPO; | |
| | 17 | (control\$4 near3 drill\$3) and (electric\$3 near3 transmit\$4 near3 (tubular | DERWENT USPAT; | 2004/06/02 13:26 |
| - | '' | tubing pipe string casing)) and (tool valve) | US-PGPUB; | 2007/00/02 13.20 |
| | | | EPO; JPO; | |
| | | | DERWENT | |
| - | 1 | (control\$4 near3 drill\$3) same (electric\$3 near3 transmit\$4 near3 | USPAT; | 2004/06/02 14:43 |
| | | (tubular tubing pipe string casing)) | US-PGPUB; | |
| | | | EPO; JPO; DERWENT | |
| _ | 20 | (control\$4 near3 drill\$3) and (electric\$3 near3 transmit\$4 near3 (tubular | USPAT; | 2004/06/02 14:50 |
| - | 20 | tubing pipe string casing)) | US-PGPUB; | 250 1700/02 14.50 |
| | | 51 1 1 m 5 6 6 7 6 1 m 5 | ЕРО; ЛРО; | |
| | | | DERWENT | |
| - | 2 | (control\$4 near3 drill\$3) and (electric\$3 near3 transmit\$4 near3 (tubular | USPAT; | 2004/06/02 14:51 |
| 1 | } | tubing pipe string casing)) and jar\$4 | US-PGPUB, | |
| | | | EPO; JPO; DERWENT | |
| 1_ | 36 | (solenoid near3 valve) with jar\$4 | USPAT; | 2004/06/02 15:11 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЈРО; | |
| L | <u> </u> | | DERWENT | |

| - | 84 | (solenoid near3 valve) same jar\$4 | USPAT; | 2004/06/02 15:19 |
|---|-----|--|-----------|--|
| | | | US-PGPUB; | |
| | | | ЕРО; ЈРО; | |
| | | | DERWENT | |
| - | 2 | ("4796708").PN. | USPAT; | 2004/06/02 15:19 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | |
| - | 201 | (175/104).CCLS. | USPAT; | 2004/06/03 07:50 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | |
| - | 887 | (175/61).CCLS. | USPAT; | 2004/06/03 07:50 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЈРО; | |
| | | | DERWENT | |
| - | 570 | (175/57).CCLS. | USPAT; | 2004/06/03 07:50 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| | | | DERWENT | |
| - | 10 | ((175/104).CCLS.) and ((175/57).CCLS.) | USPAT; | 2004/06/03 07:52 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЈРО; | |
| | | | DERWENT | |
| - | 7 | ((175/104).CCLS.) and ((175/61).CCLS.) | USPAT; | 2004/06/03 07:52 |
| | | | US-PGPUB; | |
| | | | ЕРО; ЛРО; | |
| 1 | 1 | | DERWENT | The state of the s |